

CLAIMS

1. A crank gear (10) for a reciprocating compressor suitable for constraining two cylinders of a module of the reciprocating compressor to a crankshaft (20), keeping them opposite each other with respect to an axis (21) of the shaft (20), said crank gear (10) comprising two rods (35) and a series of connecting rods (30) each of which is respectively constrained at a first end (31) to the shaft (20), and at a second end (32) to one of the two rods (35), each of which is, in turn, connected to one of the two cylinders, respectively, characterized in that said series of connecting rods (30) comprises identical connecting rods (30) symmetrically positioned with respect to an alignment axis (25) of the two cylinders, and characterized in that said connecting rods (30) of the series of connecting rods (30) are connected in pairs to the two rods (35) by means of a cross head (40) and a cross head (50), respectively.

2. The crank gear (10) according to claim 1, characterized in that said series of connecting rods (30) are connected in pairs to a cross head (40) and a cross head (50) respectively, by means of two respective pins with which these are equipped.

3. The crank gear (10) according to claim 2, characterized in that said two pins are situated at the ends of

the body of each cross head (40) and (50) and are aligned with respect to the centre of the body itself.

4. The crank gear (10) according to claim 1, characterized in that said series of connecting rods (30) are four
5 identical connecting rods.

5. The crank gear (10) according to claim 1, characterized in that the connecting rods (30) of said series of connecting rods (30) are arranged in an equal number with respect to the axis (21) of the shaft (20).

10 6. The crank gear (10) according to any of the previous claims, characterized in that the overall barycentre of the complete series of connecting rods (30) lies on the axis (25) and on the axis (21) of the shaft (20).

7. A reciprocating compressor comprising at least one
15 module equipped with a crank gear (10) according to any of the previous claims, characterized in that the shaft (20) is both statically and dynamically balanced.

8. A crank gear (10) for a reciprocating compressor as previously described and illustrated and for the purposes
20 specified above.